MULTIMEDIA UNIVERSITY

STUDENT IDENTIFICATION NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

T2, 2018/ 2019

BIA7114 – INVESTMENT ANALYSIS

(MBA Full Time)

30 JANUARY 2019
9.00 a.m – 12.00 p.m
(3 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of TEN **(10)** pages (including the cover page).

2. Answer **ALL** questions. The marks distributions are given in parentheses.

3. Write all your answers in the **Answer Booklet** provided.

Question 1

(a) You intend to build your stock portfolio by including the following stocks in your local portfolio. Given the following data, answer the questions (i), (ii) & (iii).

Common Stock	Market Value	Expected Return
Scientek	RM125,000	12%
Magni	RM175,000	16%
Titi	RM250,000	25%

(i) Compute the expected return for the three-stock portfolio. (5 marks)

(ii) If the correlation between Scientek and Titi is negative, is it good to include them in your portfolio to diversify? Explain. (5 marks)

(iii) Only consider 2-stock portfolio – Scientek & Magni. Given the following data, calculate the expected stock return and standard deviation for this 2-stock portfolio.

	Scientek	Magni
Expected return	0.12	0.16
Expected standard deviation	0.04	0.06
Weight	0.75	0.25
Correlation coefficient	-0.60	

(6 marks)

(b) Explain three considerations of investors when they consider foreign markets in building global portfolio. (9 marks)

(Total: 25 marks)

Question 2

(a) John who is a high-level manager makes superior return on investments in his company stock. Is this a violation of weak form market efficiency? Is it a violation of strong form market efficiency? (6 marks)

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(b) You are the investment analyst of HUAIIN Fund Management Berhad. Using both technical and fundamental techniques to analyse the stock performance, can you generate excess profits if markets are operating efficiently? (7 marks)

(c) Efficient market hypothesis (EMH) states that market is efficient as information has been fully and immediately reflected on the stock prices. Discuss the empirical evidence that support weak and semi-strong form (EMH) and not support strong form EMH. (12 marks)

Question 3

(a) In a portfolio of 2-assets: risky and risk-free assets, what is the correlation between risky-and risk-free asset? (5 marks)

(b) Capital asset pricing model (CAPM) indicates that there is only one risk factor influencing excess return and the risk factor is called beta. What is beta? Does it represent systematic or unsystematic risk? Assume a well-diversified portfolio with 2 stocks. What happen to the unsystematic risk of this portfolio? (6 marks)

(c) Explain arbitrage pricing model (APT) in the context of portfolio management and its main disadvantage of using this model. Consider a two-factor APT model where the first factor is changes in the 25-year Treasury bill rate, and the second factor is the percent growth in gross domestic product (GDP). The risk premium for the Treasury bill rate = 0.02 while the risk premium for GDP factor = 0.03. Calculate the expected return for the asset. (Assume the rate of return on the zero-beta asset is 0.03.) (9 marks)

(d) If you are asked to develop a microeconomic-based risk factor model, suggest at least two risk factors what you will include in the model. (5 marks)

Question 4

(a) In common, a series of economic indicators have been viewed as leading or lagging indicators of general economic activities. Discuss two economic series for leading and lagging indicators. (8 marks)

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(b) Read the information below on Telekom Malaysia Berhad carefully and answer the questions.

- The table below is sourced from Telekom Malaysia's website on 26 November 2018.

Group Results 3Q 2018

RM mn	Reported							
	3Q18	2Q18	Change QoQ	3Q17	Change YoY	YTD Sep 18	YTD Sep 17	Change YTD
Revenue	2,946.0	2,936.4	+0.3%	2,940.4	+0.2%	8,730.4	8,885.2	-1.7%
Other Operating Income	31.6	39.0	-19.0%	42.0	-24.8%	99.6	138.4	-28.0%
EBITDA	941.4	845.9	+11.3%	878.7	+7.1%	2,554.0	2,682.9	-4.8%
Normalised EBITDA	930.9	823.4	+13.1%	889.1	+4.7%	2,532.0	2,748.8	-7.9%
Depn & Amort.	1,573.2	597.0	+>100.0%	617.2	+>100.0%	2,741.3	1,860.5	+47.3%
Impairment	*995.4*	-	*+>100.0%*	-	*+>100.0%*	*995.4*	*(0.2)*	*+>100.0%*
(LBIT) / EBIT	(631.8)	248.9	->100.0%	261.5	->100.0%	(187.3)	822.4	->100.0%
Normalised EBIT	315.6	226.4	+39.4%	271.9	+16.1%	748.6	888.3	-15.7%
Other Gains / (Losses)	312.0	(0.2)	+>100.0%	(1.9)	+>100.0%	310.1	(5.5)	+>100.0%
Net Finance Cost*	80.0	80.4	-0.4%	58.9	+35.8%	234.7	198.5	+18.2%
FX (Loss) / Gain	(37.3)	(65.4)	-43.0%	27.0	->100.0%	(33.6)	99.7	->100.0%
(Loss) / Profit Before Tax	(431.6)	108.4	->100.0%	235.5	->100.0%	(129.0)	740.4	->100.0%
PATAMI	(175.6)	102.0	->100.0%	211.8	->100.0%	83.5	652.7	-87.2%
Normalised PATAMI	266.4	155.8	+71.0%	203.5	+30.9%	527.5	641.3	-17.7%

*Excludes FX Gain/(Loss)

(Source: Telekom Malaysia, 2018)

- The expert is sourced from The Star Online on 28 November 2018.

TM lowers future dividend payout outlook after Q3 losses

KUALA LUMPUR: Telekom Malaysia Bhd (TM) today announced a lower dividend distribution policy, starting from the next payout, after the telecommunication company posted its first quarterly net loss in ten years.

TM made a net loss of RM175.6mil in the three-month ended Sept 30 due to a massive RM935mil impairment charge on its network assets recognised during the quarter, the company said in a filing with Bursa Malaysia on Monday.

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Core net profit, or normalised PATAMI excluding non-operational items, stood at RM266.4mil. Previously, TM's dividend policy was to distribute its entire PATAMI to shareholders.

"In light of the current operating landscape and after careful consideration of the potential impact on our earnings alongside our efforts to transform the company to adapt thereto, the board has determined the review of our dividend policy to support TM's long-term strategic objectives," acting group chief executive officer Imri Mokhtar said in a statement.

Future payouts, Imri said, will be paid depending on overall business and earnings performance, capital commitments, financial conditions, distributable reserves and other relevant factors.

Under the new dividend policy, the company plans to distribute between 40% and 60% of its PATAMI as payouts to shareholders. The dividend policy will take effect from the next dividend declaration.

Shares in TM has plunged 63% since the the start of the year to close at RM2.32 on Monday. The stock had slumped to RM2.15 last month, its lowest level since October 2010, amid pressure from the government to reduce its broadband prices.

Last week, the Malaysian Communications and Multimedia Commission (MCMC) slammed TM for a 43% rise in complaints since 2017. MCMC said it had received 7,946 complaints about TM's services, representing an increase of 43% from the 4,528 complaints received in 2017.

TM has 2.29 million broadband customers and 1,26 million unifi subscribers.

"We continue to face various headwinds from competitive market dynamics. Nonetheless, we held revenue steady over the quarter, and saw our cost reduction initiatives bearing fruit, by recording improved operational performance for quarter-on-quarter (QoQ) and year-on-year (YoY)," Imri said.

Total capital expenditure (Capex) investment for the first nine months of 2018 at RM1.32bil, or 15.1% of revenue. This is within TM's full year capex guidance of 19-20% of revenue, Imri said.

By asset type, access comprised 62% of total spending, followed by core network at 15% and the remaining 23% was for support systems.

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Imri, the former chief operating officer at TM, took over his current role on Nov 16 following the sudden departure of Datuk Bazlan Osman.

(Source: The Star online, 28 November 2017)

- The expert is sourced from The Star Online on 20 November 2018.

Telekom Malaysia's trouble - Bazlan backlash

Telekom Malaysia Bhd's (TM) share price continued to slide after the abrupt departure of its acting group CEO, Datuk Bazlan Osman, on Friday and the company coming under pressure from the regulator for the shortcomings in its services.

In yesterday's trading, its share price fell more than 5% to close at RM2.26. Year-to-date, TM has dropped 63%, wiping out RM14bil from its market capitalisation.

This may affect its standing as an FBM KLCI component stock when the next review comes up and have a bearing on the net asset worth of its shareholders, particularly, its major investor Khazanah Nasional Bhd.

TM's 52-week low share price is RM2.11, while its high for the same period is RM6.50. As at yesterday, its market capitalisation stood at RM8.49bil.

Bazlan's shocking departure was announced on Friday with immediate effect. He took over as acting group CEO of TM from Datuk Seri Mohammed Shazalli Ramly, who quit in early June, not long after the Pakatan Harapan government came into power.

While TM has not said why Bazlan left, the market is abuzz with talk that TM is facing "challenging times with pressure mounting on its performance and it is slow to act when the government wants the country wired up with fibre sooner".

Imri Mokhtar has taken over from Bazlan as the acting group CEO. Imri is a home-grown talent with a background in strategy and business operations, having helmed Unifi successfully over the last few years.

Whether Imri will eventually be confirmed as group CEO remains to be seen, but for now, he has to drive TM forward. The decision to appoint a group CEO lies with "TM's special shareholder and it has its own due process".

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"What TM needs is someone with marketing and technical knowhow to whip TM into shape by streamlining the structure, make it flat and make everyone accountable. With a workforce of 24,000, TM can do a lot more and it has to optimise and sweat its assets," said an industry executive.

The executive added that "by just cutting down on the overheads, it can show better earnings".

Yesterday, the regulator – the Malaysian Communications and Multimedia Commission (MCMC) –slammed TM for a 43% rise in complaints since 2017. MCMC said it had received 7,946 complaints about TM's services, representing an increase of 43% from the 4,528 complaints received in 2017.

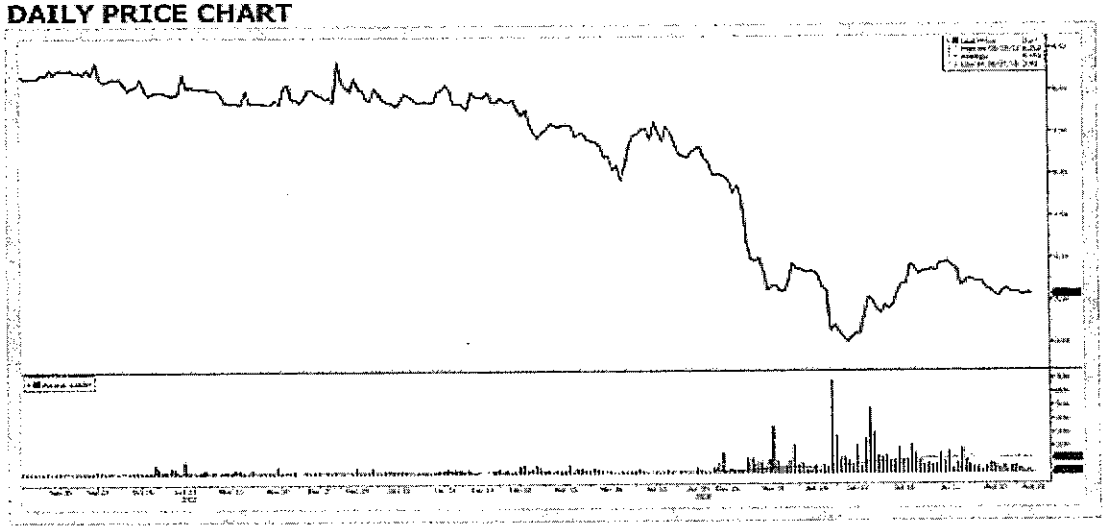
(Source: The StarOnline, 2018)

INVESTMENT STATISTICS

FYE 31st Dec	2016	2017	2018F	2019F
Revenue (RM'm)	12,060.9	12,085.1	11,419.6	10,812.0
EBIT (RM'm)	1,185.4	1,092.7	719.4	681.2
PBT (RM'm)	1,018.0	1,048.0	574.1	555.6
Normalised PATAMI (RM'm)	847.9	863.2	501.4	485.2
Normalised EPS (sen)	22.6	23.2	13.3	12.9
EPS growth (%)	-6.6	2.5	-42.4	-3.2
PER(x)	15.8	15.4	26.8	27.6
Net Dividend (sen)	21.5	21.1	11.9	11.6
Net Dividend Yield (%)	6.0	5.9	3.3	3.2

(Source: MIDF research, 30 August 2018)

DAILY PRICE CHART



(Source: MIDF research, 30 August 2018)

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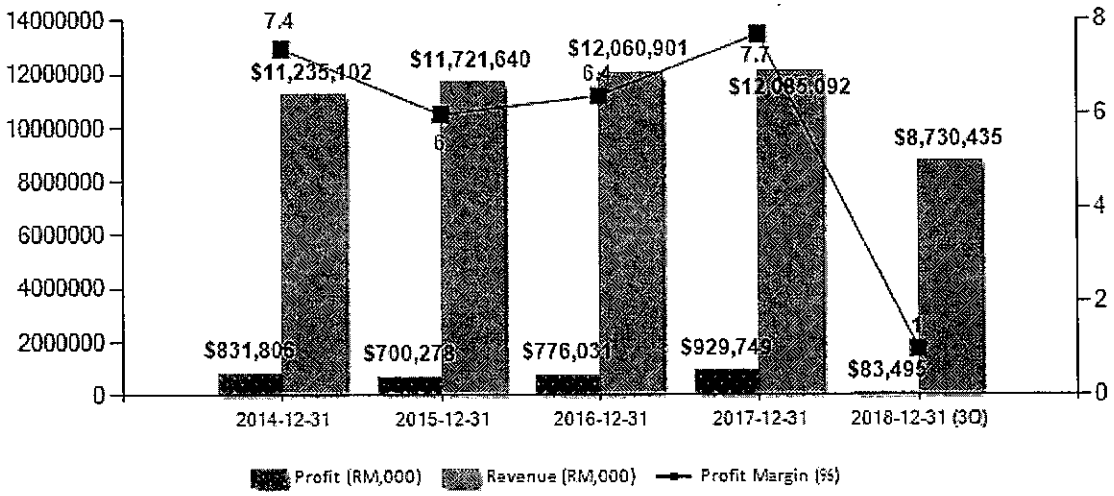
TM 5 Years Revenue & Profit Trend



(Source: Malaysiastock.biz's website, November 2018)

- The excerpt below is taken from The Edge Financial Daily.

"Possible new entrants likely to challenge TM's market dominance

Telekom Malaysia Bhd (TM) reported a 51.5% year-on-year (y-o-y) decline in net profit for second quarter of financial year 2018 (2QFY18) net profit to RM102 million. Stripping out non-operating items, normalised net profit dropped 25.1% y-o-y to RM155.8 million, mainly due to lower voice revenue while data services were affected by a provision made on estimated impact of regulatory mandated access pricing. For cumulative six months of FY18 (1HFY18), the results were below expectations as they only accounted for 39% and 36% of our and market's full-year estimates, respectively. TM is now extending the affordable entry-level broadband plan to all households effective September. Previously, the Unifi basic plan was only made available to the bottom 40% segment. In view of a challenging environment in the broadband space with increasing regulatory pressure and market competition, we cut our FY18-FY20 earnings forecasts by 9%-14% to account for lower data revenue. As such, our discounted cash flow-based TP is reduced from RM4.65 to RM3.83. We downgrade our rating from "trading buy" to "neutral". No interim dividend was declared and we cut our dividend forecasts accordingly, which translate into a yield of about 3% per annum.

1HFY18 revenue fell 2.7% y-o-y mainly due to lower revenue from voice, data, and other telecommunications-related services. Data services were affected by a provision

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amounting to RM88.4 million arising from the estimated impact of the Mandatory Standard on Access Pricing (MSAP). Only the Internet segment delivered higher revenue on the back of higher contribution from Unifi fixed and Unifi mobile. Unifi achieved a customer base of about 1.22 million, up 20.9% y-o-y. Meanwhile, voice revenue was down 8.4% y-o-y due to lower traffic minutes and lower cumulative customers.

1HFY18 normalised net profit dropped 40.4% y-o-y mainly on a lower revenue and a higher effective tax rate (49.5% versus 32.5%) due to loss from its mobile unit for which no corresponding tax loss or deferred tax asset was recognised. Meanwhile, total cost to revenue increased from 90.7% in 1HFY17 to 92.4% in 1HFY18, mainly due to a higher manpower cost and a direct cost in 1QFY18 and 2QFY18 respectively.

Following the implementation of the MSAP in June, TM and Maxis Bhd have cut their broadband prices to reflect the drop in network access pricing. Going forward, we believe competition in the broadband space will intensify with more players be given access to fibre. This could potentially threaten TM's monopoly in providing high-speed broadband services nationwide. Also, given the likelihood of Tenaga Nasional Bhd opening up its fibre network to other telcos, we think there is room for further decline in fixed-line broadband prices in the long run."

(Source: The Edge Financial Daily, September 3, 2018.)

Use industry and company analysis, provide your view on the selection of TM stock in your portfolio. (10 marks)

(c) Discuss the importance of financial statement analysis in investing decision. (7 marks)

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SELECTED EQUATIONS

1) $$\text{Variance} = \frac{\sum_{i=1}^{n} [\, R_i - E(R) \,]^2}{n}$$

2) $$\text{Standard deviation} = \sqrt{\text{Variance}}$$

3) $$COV_{AB} = \sum_{i=1}^{n} [(\, R_{Ai} - E(R_A))\,(R_{Bi} - E(R_B))]\, P_i$$

4) $$E(R_{port}) = \sum_{i=1}^{n} W_i\, E(R_i)$$

5) $$\text{Correlation}_{AB} = \frac{COV_{AB}}{\sigma_A \sigma_B}$$

6) $$\beta eta_i = \frac{COV\,(\, R_i\,,\, R_m\,)}{\sigma^2(R_m)}$$

7) $$R_i = RFR + \beta_i\,(\, R_m - RFR)$$

8) $$\sigma_{port} = \sqrt{W_1^2\sigma_1^2 + W_2^2\sigma_2^2 + 2W_1W_2r_{1,2}\sigma_1\sigma_2}$$

End of Paper